

pH (Hydrogen Ion) Electrometric Method**SM 4500 H⁺ B – 2000 (2011)**

ADDITIONAL QC REQUIREMENTS FOR THIS METHOD: Certified or Accredited laboratories using this method are assessed to applicable requirements of SM 1020 and SM 4020.

Facility Name: _____ VELAP ID _____

Assessor Name: _____ Analyst Name: _____ Inspection Date _____

Records Examined: SOP Number/ Revision/ Date _____ Analyst: _____

Sample ID: _____ Date of Sample Preparation: _____ Date of Analysis: _____

Relevant Aspect of Standards	Method Reference	Y	N	N/A	Comments
Is the meter accurate and reproducible to 0.1 pH unit and equipped with a temperature-compensation adjustment?	2.a				
Is the electrode stored in a solution indicated by manufacturer's instructions?	4.a				
If a nonsealed electrode is used, is it filled to the proper level using the correct electrolyte?	2.b				
When occasional pH measurements are made, is the meter standardized before each measurement following manufacturer's instructions? (When frequent pH measurements are made and the instrument is stable, instrument may be standardized less frequently.)	4.a				
Have laboratory-prepared buffer solutions been prepared within the last four weeks?	3.a				
For laboratory-prepared buffers, do the buffer solutions appear to be free from growth or contamination?	3.a				
Is equilibrium established between the electrode and the sample by stirring to insure homogeneity?	4.b				
Are samples stirred gently to minimize carbon dioxide entrainment?	4.b				
Does the meter hold a steady reading after reaching equilibrium?	4.b				
Are the electrodes rinsed and blotted dry with a soft tissue before each reading? (Disregard if a portion of the next sample to be analyzed is used as a rinse.)	4.a				
When calibrating an instrument with a temperature dial, is the temperature of measurement recorded and the temperature dial adjusted on the meter so the meter indicates the pH value of buffer at test temperature (this is a slope adjustment)?	4.a				
Following standardization, is a buffer analyzed as a check sample with an acceptable range of ± 0.1 pH unit from the true value of the buffer?	4.a				
Is the temperature at which pH is measured always reported?	1.b				

Notes/ Comments: